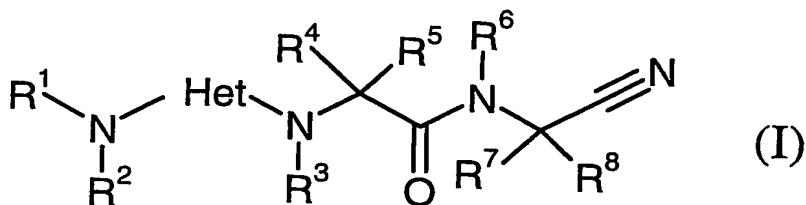


## CLAIMS

1. A compound of formula (I):

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$\text{R}^1$  is independently hydrogen,  $\text{C}_{1-6}$  alkyl or  $\text{C}_{3-6}$  cycloalkyl;

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$\text{R}^2$  is independently aryl, heteroaryl or a group  $\text{C}_{1-6}$ alkyl $\text{R}^9$ ,  $\text{CO}(\text{C}_{1-6}$ alkyl) $\text{R}^9$  or  $\text{SO}_2(\text{C}_{1-6}$ alkyl) $\text{R}^9$ ;

15 or  $\text{R}^1$  and  $\text{R}^2$  together with the nitrogen atom to which they are attached form a 4 to 7-membered saturated ring optionally containing a carbonyl group, O, S or N atom and optionally substituted by one or more  $\text{C}_{1-6}$  alkyl, amino, hydroxy,  $\text{CO}_2\text{C}_{1-6}$  alkyl,  $\text{CO}\text{C}_{1-6}$  alkyl, halogen,  $\text{C}_{1-6}$  alkylhydroxy,  $\text{NR}^{10}\text{R}^{11}$  where  $\text{R}^{10}$  and  $\text{R}^{11}$  are independently hydrogen,  $\text{C}_{1-6}$  alkyl or together with the nitrogen atom to which they are attached form a 5- or 6-membered saturated ring optionally containing a further O, S or  $\text{NR}^1$  group,  $\text{C}_{1-6}$  alkyl $\text{NR}^{12}\text{R}^{13}$  where  $\text{R}^{12}$  and  $\text{R}^{13}$  are independently hydrogen or  $\text{C}_{1-6}$  alkyl,  $\text{CONR}^{12}\text{R}^{13}$ , or 20 optionally substituted by  $\text{C}_{1-6}$ alkyl $\text{R}^9$ , aryl, phenoxy, COaryl, COheteroaryl or a heteroaryl group, the latter six groups being optionally substituted by halogen, amino, hydroxy, cyano, nitro, carboxy,  $\text{CONR}^{12}\text{R}^{13}$ ,  $\text{SO}_2\text{NR}^{12}\text{R}^{13}$ ,  $\text{SO}_2\text{R}^{12}$ , trifluoromethyl,  $\text{NHSO}_2\text{R}^{12}$ ,  $\text{NHCOR}^{12}$ , ethylenedioxy, methylenedioxy,  $\text{C}_{1-6}$  alkyl,  $\text{C}_{1-6}$  alkoxy,  $\text{C}_{1-6}$  alkyl  $\text{NR}^{10}\text{R}^{11}$ , 25  $\text{SR}^{12}$  or  $\text{NR}^{10}\text{R}^{11}$ ;

30 Het is a heteroaryl ring chosen from pyridine, pyrimidine, pyrazine, pyridazine or triazine and optionally substituted by halogen, amino, hydroxy, cyano, nitro, carboxy,  $\text{CONR}^{12}\text{R}^{13}$ ,  $\text{SO}_2\text{NR}^{12}\text{R}^{13}$ ,  $\text{SO}_2\text{R}^{12}$ , trifluoromethyl,  $\text{NHSO}_2\text{R}^{12}$ ,  $\text{NHCOR}^{12}$ ,  $\text{C}_{1-6}$  alkyl,  $\text{C}_{1-6}$  alkoxy,  $\text{SR}^{12}$  or  $\text{NR}^{10}\text{R}^{11}$ ;

R<sup>3</sup> is independently hydrogen, C<sub>1-6</sub> alkyl or C<sub>3-6</sub> cycloalkyl;

R<sup>4</sup> is independently hydrogen, C<sub>1-8</sub> alkyl, C<sub>3-8</sub> cycloalkyl, arylC<sub>1-5</sub>alkyl or heteroarylC<sub>1-5</sub>alkyl, the latter three groups being optionally substituted by one or more halogen, amino, hydroxy, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, SR<sup>12</sup> or NR<sup>10</sup>R<sup>11</sup>;

R<sup>5</sup> is independently hydrogen, C<sub>1-6</sub> alkyl or C<sub>3-6</sub> cycloalkyl;

R<sup>6</sup> is independently hydrogen, C<sub>1-6</sub> alkyl or C<sub>3-6</sub> cycloalkyl;

R<sup>7</sup> is independently hydrogen, C<sub>1-6</sub> alkyl or C<sub>3-6</sub> cycloalkyl;

R<sup>8</sup> is independently hydrogen, aryl, heteroaryl or C<sub>1-6</sub> alkyl optionally substituted with one or more aryl, heteroaryl, halogen, amino, hydroxy, carboxy, CONR<sup>12</sup>R<sup>13</sup>, SO<sub>2</sub>NR<sup>12</sup>R<sup>13</sup>,  
SO<sub>2</sub>R<sup>12</sup>, NHSO<sub>2</sub>R<sup>12</sup>, NHCOR<sup>12</sup>, C<sub>1-6</sub> alkyl, C<sub>3-6</sub> cycloalkyl, C<sub>1-6</sub> alkoxy, SR<sup>12</sup> or NR<sup>10</sup>R<sup>11</sup>;

or a pharmaceutically acceptable salt thereof.

2. A compound according to claim 1 in which R<sup>1</sup> is hydrogen or C<sub>1-6</sub>alkyl and R<sup>2</sup> is

CH<sub>2</sub>R<sup>9</sup> or CH<sub>2</sub>CH<sub>2</sub>R<sup>9</sup> where R<sup>9</sup> is phenyl or a 5- or 6-membered aromatic ring containing one or two heteroatoms and optionally substituted by C<sub>1-6</sub>alkyl

3. A compound according to claim 1 or 2 in which R<sup>1</sup> and R<sup>2</sup> form a piperidine, piperazine, pyrrolidine, morpholine, or thiomorpholine ring optionally substituted by

CH<sub>2</sub>OH, CH<sub>2</sub>CH<sub>2</sub>OH, hydroxy, CONH<sub>2</sub>, phenyl, phenoxy, C(O)-furyl, the latter three groups being optionally substituted by halogen, in particular chloro

4. A compound according to any one of claims 1 to 3 in which R<sup>3</sup> is hydrogen.

30 5. A compound according to any one of claims 1 to 4 in which R<sup>4</sup> is hydrogen.

6. A compound according to any one of claims 1 to 5 in which R<sup>5</sup> is hydrogen or phenyl optionally substituted by C<sub>1-6</sub> alkyl or C<sub>1-6</sub> alkoxy.

35 7. A compound of formula (I) selected from:

N~1~-[Cyano(2-methoxyphenyl)methyl]-N~2~- (2-morpholin-4-ylpyrimidin-4-yl)-L-leucinamide

N~1~-[Cyano(2-methoxyphenyl)methyl]-N~2~- (2-piperazin-1-ylpyrimidin-4-yl)-L-leucinamide,

5 N-[Cyano(2-methoxyphenyl)methyl]-N-(2-morpholin-4-ylpyrimidin-4-yl)-L-phenylalaninamide

N~1~- [Cyano(2-methoxyphenyl)methyl]-3-cyclohexyl-N~2~- (2-morpholin-4-ylpyrimidin-4-yl)-L-alaninamide

N-[2-(Benzylamino)pyrimidin-4-yl]-N-(cyanomethyl)-L-phenylalaninamide

10 N-{2-[Benzyl(methyl)amino]pyrimidin-4-yl}-N-(cyanomethyl)-L-phenylalaninamide

N-{2-[4-(4-Chlorophenyl)piperazin-1-yl]pyrimidin-4-yl}-N-(cyanomethyl)-L-phenylalaninamide

N~2~-[2-(Benzylamino)pyrimidin-4-yl]-N~1~- (cyanomethyl)-3-cyclohexyl-L-alaninamide

15 N~2~-{2-[Benzyl(methyl)amino]pyrimidin-4-yl}-N~1~- (cyanomethyl)-3-cyclohexyl-L-alaninamide

N~2~-{2-[4-(4-Chlorophenyl)piperazin-1-yl]pyrimidin-4-yl}-N~1~- (cyanomethyl)-3-cyclohexyl-L-alaninamide

N~1~- (Cyanomethyl)-N~2~- (4-morpholin-4-ylpyrimidin-2-yl)-L-leucinamide

20 N~1~- (Cyanomethyl)-N~2~- (2-morpholin-4-ylpyrimidin-4-yl)-L-leucinamide

N~1~- (Cyanomethyl)-N~2~- [2-(4-hydroxy-4-phenylpiperidin-1-yl)pyrimidin-4-yl]-L-leucinamide

N~1~- (Cyanomethyl)-N~2~- {2-[methyl(pyridin-3-ylmethyl)amino]pyrimidin-4-yl}-L-leucinamide

25 N~2~-{2-[Benzyl(methyl)amino]pyrimidin-4-yl}-N~1~- (cyanomethyl)-L-leucinamide

N~2~-{2-[4-(4-Chlorophenyl)piperazin-1-yl]pyrimidin-4-yl}-N~1~- (cyanomethyl)-L-leucinamide,

N~2~-{2-[4-(5-Chloropyridin-2-yl)piperazin-1-yl]pyrimidin-4-yl}-N~1~- (cyanomethyl)-L-leucinamide,

30 N~1~- (Cyanomethyl)-N~2~- {2-[methyl(thien-3-ylmethyl)amino]pyrimidin-4-yl}-L-leucinamide

N~1~- (Cyanomethyl)-N~2~- (2-thiomorpholin-4-ylpyrimidin-4-yl)-L-leucinamide

N~1~- (Cyanomethyl)-N~2~- [2-(4-phenylpiperazin-1-yl)pyrimidin-4-yl]-L-leucinamide

35 N~1~- (Cyanomethyl)-N~2~- {2-[2-(hydroxymethyl)piperidin-1-yl]pyrimidin-4-yl}-L-leucinamide

N~1~~(Cyanomethyl)-N~2~~{2-[(2R)-2-(hydroxymethyl)pyrrolidin-1-yl]pyrimidin-4-yl}-L-leucinamide

N~1~~(Cyanomethyl)-N~2~~[2-(4-hydroxypiperidin-1-yl)pyrimidin-4-yl]-L-leucinamide

5 N~1~~(Cyanomethyl)-N~2~~{2-[4-(2-furoyl)piperazin-1-yl]pyrimidin-4-yl}-L-N~2~~{2-[3-(Aminocarbonyl)piperidin-1-yl]pyrimidin-4-yl}-N~1~~(cyanomethyl)-L-leucinamide

N~1~~(Cyanomethyl)-N~2~~{2-[methyl(2-pyridin-2-ylethyl)amino]pyrimidin-4-yl}-L-leucinamide

10 N~2~~[2-(4-Benzylpiperidin-1-yl)pyrimidin-4-yl]-N~1~~(cyanomethyl)-L-leucinamide  
N~1~~(Cyanomethyl)-N~2~~[2-(4-pyridin-2-ylpiperazin-1-yl)pyrimidin-4-yl]-L-leucinamide

N~1~~(Cyanomethyl)-N~2~~[2-(4-phenylpiperidin-1-yl)pyrimidin-4-yl]-L-leucinamide

15 N~1~~(Cyanomethyl)-N~2~~{2-[4-(2-hydroxyethyl)piperidin-1-yl]pyrimidin-4-yl}-L-leucinamide

N~2~~{2-[4-(3-Chlorophenyl)piperazin-1-yl]pyrimidin-4-yl}-N~1~~(cyanomethyl)-L-leucinamide

N~1~~(Cyanomethyl)-N~2~~[2-(4-phenoxy)piperidin-1-yl]pyrimidin-4-yl]-L-leucinamide

20 N~1~~(Cyanomethyl)-N~2~~[2-(3-phenylpyrrolidin-1-yl)pyrimidin-4-yl]-L-leucinamide

N~1~~(Cyanomethyl)-N~2~~(2-{methyl[(3-methylisoxazol-5-yl)methyl]amino}pyrimidin-4-yl)-L-leucinamide

and pharmaceutically acceptable salts thereof.

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8. A compound of formula (I) as defined in any one of claims 1 to 7 for use in therapy.

9. A pharmaceutical composition which comprises a compound of the formula (I) as defined in any one of claims 1 to 7 or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable diluent or carrier.

30 10. A method for producing inhibition of a cysteine protease in a mammal, such as man, in need of such treatment, which comprises administering to said mammal an effective amount of a compound of the present invention as defined in any one of claims 1 to 7 or a pharmaceutically acceptable salt thereof.

11. A method for treating pain, such as neuropathic pain, in a mammal, such as man, in need of such treatment, which comprises administering to said mammal an effective amount of a compound as defined in any one of claims 1 to 7, or a pharmaceutically acceptable salt thereof.